244/

526 178 243 789 In the Chiriguano missions or in the villages of the Caipipendí valley one finds on the large village plaza /Fig. 10 appears here/ an abundance of onion-like objects made of leaves of corn folded together (Fig. 11). Children throw them to each other with the flat of the hand and try to catch them again before they fall to the ground. A hurried traveler would see in this

343 251

Fig. 9. Cancrith on piles (*anatiñi*). Ivo. (Phote. A. M.)

526 178 243 789 game only an Indian form of our court tennis or a rudimentary tennis. Actually, this is certainly the present significance of this amusement. In olden days the meaning was not the same, as I learned in the Machareti mission. Only a few years ago *mbotá* was played only at the time when the corn was beginning to ripen. The children formed a circle and threw this kind of shuttlecock to one another. If by chance one of them let it fall through inadvertance or awkwardness, he left the place

/354 cont./

small stick was too short to be handled with ease. he fastened it securely to another stick by means of vegetable fibers (embira) (Fig. 25). This done, he sat down on the ground, pressing the soles of his feet on the small cupped stick, and imparted with the palms of the hands a rotating movement to the other stick. The glowing sawdust which was detached by the effect of the friction fell on dried dung placed near the gadget to serve as tinder, which, at the end of a rather short time, began to catch fire.

According to the season, the Chiriguano light their fires inside the hut or outside. The hearth is composed of long branches which they lay out like the spokes of a wheel. As the ends burn, they push them closer to the central fire. The job of getting the dead wood falls within the province of the men (Fig. 26).

In front of the huts they often erect a little shed in which the women do the cooking. The

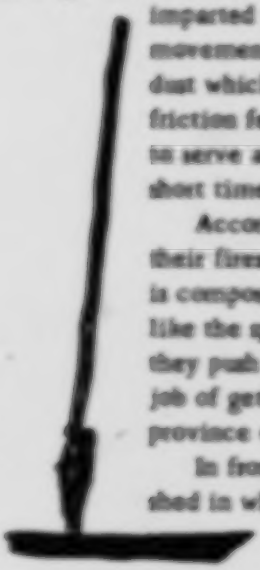

Fig. 25. Ancient apparatus for making fire, reconstructed by a modern Chiriguano. Prov.: Carurutí. (1/6 nat. size.)

roof of this shelter serves as a shelf for putting provisions and utensils on.

Preparation of Food

The modern Chiriguano do not seem to observe any food prohibitions, at least in daily life, for the custom of fasting, for women at the time of puberty and for men upon the birth of a child, is not yet lost. In olden days certain animals /355/ were taboo (1). The men of a few villages thus reserved for themselves

1. In order not to kill one of their dead relatives transformed into a fox, the Chiriguano

2:Métraux E-5 (1929) 1948 SF10 Chiriguano SF10

252 415 412 264 [3 9 263] *Chiriguano* mortars are of the cylindrical type; the pestle is long and heavy. Maize flour is sifted in round basket sieves very similar to those used in the rest of tropical South America. Meat is boiled or broiled on a spit; the babracot is conspicuously absent. Food is served in clay bowls and more rarely in wooden dishes, and eaten with wooden spoons. Salt is extracted from mines near San Luis, or obtained by evaporating the water of salty brooks.

VILLAGES AND HOUSES

342 178 592 **Dwellings.**—Until the 17th century, the *Chiriguano* built large communal houses, "150 feet [46 m.] long," in which many families lived together, each occupying the space between two wall posts (Lizárraga, 1909, p. 552). A hundred years later they were lodged, as they are now, in small rectangular houses, with a steep gable roof and wattle-and-daub walls. Sometimes the roof projects in front to form a small veranda. A house belongs either to a single biological family or to two or three closely related families, generally parents with their married children.

361 178 [343 712] The ancient villages were composed of three to five long houses, grouped around the plaza. Modern villages also have a central plaza. A storehouse is built on piles near each dwelling and serves to protect crops against rats and dampness. Like the settlements of their Paraguayan ancestors, some ancient *Chiriguano* villages were protected by a single or double palisade.

352 **Household furniture.**—The *Chiriguano* sleep on platform beds of reeds and use their woolen or cotton hammocks to recline on during the day or as cradles for babies. The typical *Chiriguano* hammock is made of long warp threads twined together at set intervals by weft strands; a few caraguatá specimens are made in a net technique. Other items of furniture are benches carved of a single piece of wood, large vessels to store clothes and food, and crude shelves hanging from the roof. A tree trunk with three radiating branches serves as supports for vessels or for piles of corn.

DRESS AND ADORNMENT

291 177 **Clothing.**—*Chiriguano* men, wearing only a G string (chiripá), were a common sight before shirts and pants came into general use. The cotton tunic (cushma), which was adopted from the *Quechua* after the *Chiriguano* migrations, disappeared long ago, but the poncho, a more recent acquisition, is still popular. As early as the 18th century, *Chiriguano* horsemen, in true Spanish style, wore skin breeches and leather coats. They wear sandals when they have to walk over stony ground or through thorny bush.

291
854

283
516
291

●343

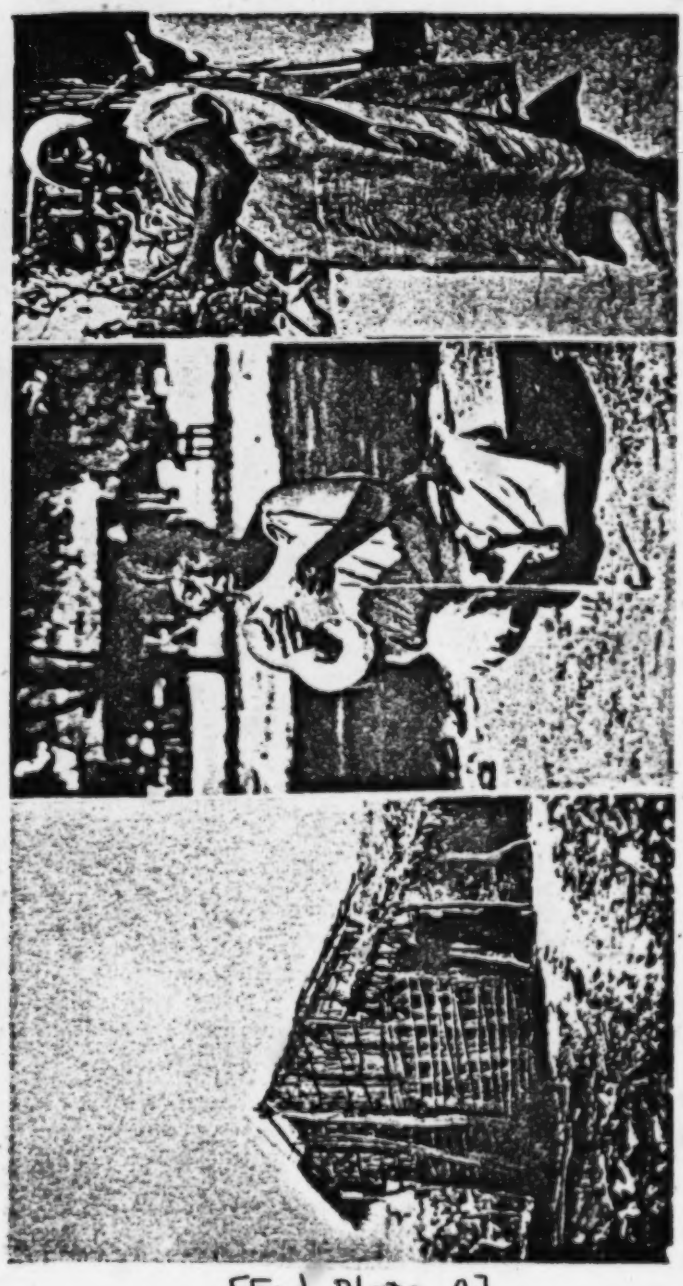

PLATE 42.—Chiriguano Indians. *Left:* Granary on piles. *Center:* Woman spinning. *Right:* Woman and child. (Courtesy Alfred Métraux.)

[End Plate 2]

/256 cont./
241 enough for this. Although there are good fences, there are better
231 and braver bulls or calves, who with their horns are capable of
177 opening iron gates, opening the way to all their females, whom they then call with much affection with their prolonged bellows (2).

2. The harmful cattle even become ferocious; if a man alone tries to chase them out of the field without the help of good dogs, he will be charged.

24 The harvest marks for the Chiriguano the time of the year
22 that he calls Mbaepiro, which literally means a dry thing or things, and everyone will understand that this corresponds to autumn, in which season the trees and every bush take off their beauty and raiment. Men and women then are busy carrying in
● [343] what the land has produced for them; the maize crop is kept in the plot itself, in a kind of house of sticks called Abatío, maize house, and the woman little by little, as needed, brings it to the town for the daily meal and for the preparation of chicha (3).

3. If the harvest of gourds is not abundant, they put them on the maize in the same shed, if they do not build another; the bean crop is brought immediately to the tribe or town.

527 /257/ After this the Chiriguano spends his time in idleness, drinking here today, there tomorrow, visiting with some, playing with others, enjoying, in sum, with almost no work, a better
[221] life than the greatest ruler in the world. The harvest is cut between May and June, and after it the libations in honor of the belly god begin. As the desire to drink is extraordinary, before having the general libation, the families, one by one, begin to make a small quantity of chicha to be drunk among a few friends and relatives.

5:Nordenskiöld E-5 H (1908-1909, 1913) 1920
SF10 Chiriguano SF10
Chane SF8
[p 1]
C
343

Fig. 1. Maize-barn.
Chiriguano.

I.

Dwellings.

C
ce
361

Like all other Indians I visited south of Sta Cruz de la Sierra in Bolivia, the Chiriguano and Chané live in villages. Some of these villages are rather large and inhabited by several hundred people. Frequently a number of villages are situated quite close to each other. As a rule, the huts stand around an open space which is sometimes planted with trees to give shelter. These »squares» serve as meeting-places and playgrounds.

C
ce
342

The huts are square. They are built of reeds or wooden laths, and thatched with grass. They are very often plastered with earth.

C
ce

There are no huts here of the original Indian shape. The real Chiriguano (Chané?) huts were very large; as many as a hundred people lived in the same house, the whole

[592]
[361]

5:Nordenskiöld E-5,4 (1908-1909, 1913) 1920
SF10 Chiriguano SF10
Chane SF8

the earth-plastering of huts is here an original Indian idea. I have attempted to indicate on a map the distribution of huts with earth-plastered walls, but I refrain from publishing it because, in the majority of cases, I cannot ascertain whether the Indians learned from the Whites to plaster their huts. Huts with earth-plastered walls are found among the Indians around Roraima in Guiana[1]) and among the Ijca[2]) in Columbia. The Indians at Mojos[3]) used to have such huts, and OUTES[4]) mentions them from the Cainguá etc. Earth-plastered mestizo huts are also common in the Mizque valley in Bolivia.

The Chané on the Rio Itiyuro, but not those on the Rio Parapiti, and the Chiriguano have maize-barns on piles.[5]) Occasionally the barn and dwelling-house are combined in such wise that the people live on the ground-floor and store their maize on the floor above. During my travels I have only seen barns on piles among the Mataco-Guisnay (one only), Mataco Vejos, and the Chacobo (one only). Some Quichua huts between the Rio Chapáre and Cochabamba are built on piles. I scarcely think these are original, however.

JOHANNES LEHMANN has written a treatise on pile-buildings all over the world. He mentions there their occurrence among several tribes in northern S. America, which are shown on the map below. The village on piles from La Plata mentioned by LEHMANN after HEIERLI is, of course, not Indian; nor are the barns from the Argentine

[1]) THULIN.
[2]) BOLINDER (4), P. 35.
[3]) MARBAN P. 133; CASTILLO, P. 318.
[4]) OUTES Y BRUCH (5) P. 93.
[5]) Already LIZÁRRAGA (P. 609) speaks of the maize-barns of the Chiriguano: »No dormian en el buhio, sino fuera, las espaldas seguras con unas pirnas de maiz junctо al buhio (pirna es un cercado como de dos varas de hueco, redondo de cañas, donde se encierra el maiz).«

5:Nordenskiöld E-5,4(1908-1909, 1913) 1920
SF10 Chiriguano SF10
Chané SF8
South American Indians
53

Pampas in which the corn is stored to protect it from hares.

The above-mentioned village and barns I have, therefore, left out of my map. PATER SCHMIDT[1]) mentions pile-buildings from other tribes too.

FRIEDERICI[2]) has also collected numerous statements referring to the occurrence of pile-dwellings in S. America from the works of older writers.

The table I and map I which follow show the distribution of pile-buildings in S. America according to LEHMANN, FRIEDERICI and PATER SCHMIDT, together with some additions and corrections.

On the accompanying map I have merely indicated those which seem certainly to be of Indian origin. Those mentioned at the end of the 15th century, as well as those from the 16th are so undoubtedly. I am convinced that the pile-buildings of the Chané and Chiriguano are genuinely Indian, as nowhere in this region do the Whites possess such barns. Their geographical distribution leads us to presume their genuinely Indian origin, as also that they are a culture-element which came to these Indians from the swamps of Mojos, and that they here are an Arawak culture-element too. The use of pile-buildings on hard ground is quite comprehensible to me, as they offer great advantages, whether used for barns or dwelling-houses. The idea must have come, however, from some marshy tract or from a sea-coast where the inhabitants were dependent on ebb and flood tides. In the cases where a people employ pile-buildings on hard ground which is not liable to floods, it is due, as a rule, to conservative ideas — the mode of building to which they were accustomed in their former dwelling-places has become indispensable.

---

[1]) P. 1064.
[2]) (5) P. 98.

5:Nordenskiöld E-5 4 (1908-1909, 1913) 1920
SF10 Chiriguano SF10 ●
Chane SF8
South American Indians S3

5

C
Ce
171*
102
342
343 ●
131

S
342
343
102

Map 1. The distribution of pile buildings.

● = Dwelling-houses.
○ = Barns.

5:Nordenskiöld E-5,4(1908-1909, 1913) 1920
SF10 Chiriguano SF10
Chané SF8
South American Indians SB

The notion that the pile-buildings employed as barns are here of different origin from those used as dwelling-houses, is unlikely. There is nothing in the geographical distribution to support this idea.

Outside their barns the Chiriguano and Chané have ladders consisting of logs in which steps have been hewn.

Table 1.

Pile buildings. Map. 1.

4. Chiriguano.
5. Chané.
6. Mataco-Vejos. Have evidently copied the Chané barns.
18. Quichua.
25. Mojo, MARBAN P. 132. Cooking-shed.
39. Goijiro, PATER SCHMIDT P. 1064. (after ERNST); Parauhano, JAHN.
47. Indians Roraima: Wapisiana, Arecuna, Macusi, Patamona. PATER SCHMIDT P. 1064; THULIN.
62. Chacobo.
68. Omagua. »Hicieron los indios dentro de sus mismas casas unos tablados de madera, que ellos llaman Iuzas y encima de ellos estuvimos tres meses, que fueron los de Abril, Mayo y Junio con más de seis palmos de agua debajo.
Entraban y salian las canoas dentro de las casas, y de noche quedaban de bajo de los tablados.» LAUREANO DE LA CRUZ P. 88; [MARONI] Vol. XXX, P. 197.
01. Indians on the west coast of Columbia. PIZARRO P. 204; CIEZA DE LEON (1) P. 95; OVIEDO T. 3. P. 8; ANDAGOYA P. 76; ROBLEDO P. 277.
3 F. Barbacóa, RIVET (4) AND VERNEAU P. 39.
4 F. Indians on and near Lake Maracaibo. NAVARRETE T. III. P. 8; »A quatro dias llegaron à un pueblo de güerigue-

5:Nordenskiöld E-5,4 (1908-1909, 1913) 1920
SF10 Chiriguano SF10
Chane SF8
South American Indians S

C
Ce
342
343
171
102
S
102
342

ris, que esta armado sobre madera en el agua en unas ciénegas del mismo rio». OVIEDO T. 2, P. 293. (See also P. 294 and P. 300); TOLOSA P. 229.

5 F. Indians at the mouth of the Amazon. »A cabo de seis dias de navegacion tomaron una isla en un puerto y ensenada que el rio hacia en ella, y como tres tiros de arcabuz, por este puerto y ensenada arriba, dieron con unas casas fuèrtes, armadas sobre gruesos y recios estantes que tenian hincados en el proprio cabo desta ensenada de rio o estero que alli se hacia . . . . . sobre estos estantes o pilares estaban unas salas de tablas de palmas bravas . . .» ORTIGUERA P. 372.

6 F. Indians near Para. »lesquels demeuroient dans les IOURAS qui sont des maisons faictes à la forme des Ponts aux Changes et de sainct Michel de Paris, assises sur le haut de gros arbres plantees en l'eau.» EVREUX P. 28. The civilised Indians in the same region still live in pile-buildings. KOCH-GRÜNBERG (2) T. 1, P. 3; LANGE, Several illustrations.

7 p. Oyampi, PATER SCHMIDT P. 1064. (after COUDREAU); Palicours, FAUQUE P. 359.

8 X. Warrau, PATER SCHMIDT P. 1064; RALEGH P. 50; LEVEL P. 60.

9 C. Mataco-Guisnay. (I saw one single barn on piles among these Indians).

1 R. Indians, Darien. OVIEDO T. 2, P. 455.

2 R. Caquetios, FEDERMANN P. 191.

Not on the map Galibi, French Guiana. LOMBARD P. 298.

» Indians Cayambe, Ecuador. FRIEDERICI (5). P. 99 (After MONTESINO and others.)

S
342

Pile buildings are among the culture-elements where it is sometimes difficult to decide whether they are Indian or not. In the rubber forests of Bolivia, Peru and Brazil, at favourable spots, are many barracks built on piles. THE-

SvNordenskiöld E-5,4(1908-1909, 1913) 1920
SF10 Chiriguano SF10
Chane SF8

C
Ce
177
824

sent work.) It follows that these Indians used other material for their arrows in pre-Columbian days. The Choroti and Ashluslay probably had wooden shafts to their arrows, as Chuchio does not, and probably never did grow in their country. Before *Arundo donax* grew in the Chaco it must have been difficult in many places to find material for flutes, etc. Even in the country of the Chiriguano and Chané there were reeds only in certain parts, so that the introduction of *Arundo donax* may have been of importance for other things than the material for arrows.

C
Ce
177
285

The difficulty of getting suitable material for basket-making has resulted in the baskets being of less importance to the Indians of the district under examination than to the Arawaks and Guarani-tribes elsewhere. Presumably the Chiriguano and Chané used to have carrying-baskets, which were supplanted by carrying-nets of Caraguatá or Yuchan.

C
Ce
174
[343]
[515]

Pile-barns are probably a reminiscence from a time when the Chané lived in swampy parts.

I have already pointed out that the great cleanliness of the Chané and Chiriguano shows that they immigrated to their present habitat from warmer, well-watered parts.

C
Ce
177

There are not many cultural elements of which we can say with absolute certainty that they were brought by the Chiriguano, and not by the Chané. Such are, however, urn-burials and »tembeta» of the kind now in use. This is not precluded by the fact that these cultural elements were originally western. Finger-mark ornamention, the wooden mortar, and certain bird-arrows, spindles of the Bakaïri type with a little knob on the top of the stick, are also cultural elements with such a distribution that we can assume that they were originally more intimately connected with the Chiriguano than with the Chané. Further comparative investigations, and access to an extensive quantity of the necessary material will doubtless enable us, from a study of the minor details in the external form of

/173 cont./

Under the influence of the whites, however, the Chané and Chiriguano are gradually changing their huts, and many Indians are already building huts that are identical with theirs.

No hut here has its original Indian form. The genuine Chiriguano huts (the original Chané huts are not known) were very large; up to 100 persons lived in one house, and the entire /174/ village consisted of only a few large huts (1). These

1. Annua de la Compañia de Jesus. -- Tucuman y Perú -- 1596. Relaciones geográficas de Indias. Madrid, 1885. Vol. II. Page CIV.

evidently correspond to the large family houses well known in Brazil, which I saw in Bolivia only among the Chacobo, a Pano tribe from Lago Rojo-Aguado.

Even in Viedma's (2) time, at the end of the eighteenth

2. Viedma: loc. cit.

century, /Fig. 83 appears here/ however, they seem to have given up the original type of house and built smaller huts.

In many villages there belongs to each hut one or more maize granaries (Fig. 84a), in which maize, gourds, etc. are /175/ stored. These granaries are built on piles and are perhaps a reminder of the time when the Chiriguano and Chané lived in swampy regions. To each granary there belongs, as a rule, a ladder (Fig. 84b). Sometimes the granaries and the dwellings are built together into one house. /Fig. 84a appears here./ I saw such huts in the vicinity of Machareti and at Yatavéri, not far from Ivu. Not infrequently the granaries stand in the fields, far from the dwellings.

These villages are neat and clean. Huts and market place are swept daily and the refuse is burned.

The space in the huts is not too cramped. /176/ In each house, as a rule, there lives only one family, which, aside from the rest of the family members, sometimes consists of the husbands

When I offered a Chacobo a

/182 cont./ cigarette, he took only a few puffs, kept the smoke in his mouth for a few seconds, and then threw the cigarette away. Nevertheless, the Chacobo plant tobacco, but use it exclusively as a remedy. If a Chacobo gets a "boro," a fly larva, "Dermatomya," under his skin, he covers the fly larva's entry spot with tobacco powder and is then able to squeeze out the dead larva in a few hours. The Choroti and Ashluslay are passionate smokers. /183/ For them smoking is one of the greatest enjoyments of life. These contrasts are quite strange.

The Chiriguano and the Chané have extensive plantings which, in contrast to the clearings of the Choroti and Ashluslay in the wilderness, are well tended. In former times they used spades made of hard wood with attractive handles (Fig. 89), but these have now gone out of use and have been entirely supplanted by iron spades. Not infrequently the fields lie far from the villages, as, for example, in the Caipipendi valley. This is due to the fact that water is not available throughout the year everywhere in the vicinity of the plantings.

As has been mentioned, the produce obtained is stored in granaries built on piles (Fig. 84), so that it will be at least somewhat protected from rats, moisture, etc. These granaries are seen everywhere, except among the Chané on the Rio Pilcomayo.

The fields are fenced in with fences built brush-shaped, which are often difficult to climb over. There is no fertilization of the fields. On the other hand, a field that has been exhausted is left to lie fallow.

The time of sowing is determined by the position of the Pleiades, "ychu." When this passes across the horizon very early in the morning, it is sowing time. When the rainy season begins, everything must be sowed.

The men clear and sow. Everyone helps with the harvest, men, women, and children. Among the Chané in the Itiyuro valley the men sowed the maize, that is, they took care of the larger plantings, whereas the women were gardeners and planted gourds, beans, etc.

/284 cont./

Ce 539 He asked them who their father was. "He has gone to Itica (2) to get some fish" (3), they said.

2. Rio Pilcomayo.

Ce [439] 3. The important trade in dried fish that is carried on between the tribes is described on p. 138 /omitted in the translation/.

The youngest said he should sleep with her, which he did. The oldest also wanted to sleep with him. "Won't your mother be angry if I do?" he said. "No, you shall sleep with us, for a man never comes here," they said. So he slept with both women.

After a few days the father of the girls came home. He brought along two large loads of dried fish. /285/ The father asked how he had got there. He told etc. (here the entire legend is repeated).

The father said he was not angry because he had slept with his two daughters and promised to help him get his wife back. "She is at Itica with Avayurupiagua," he said. "There is a big drinking bout there and we must go. You shall go with me and do as I say. First you should greet everybody and finally you should greet your wife. She will not recognize you. When she greets you and offers you maize beer, you will fling your arms about her and I shall hit you on the buttocks," he said. They now set out for Itica. When they arrived there, the father first greeted everyone. Finally the man greeted his wife. She offered him a calabash of maize beer. He embraced her and the old one slapped him on the buttocks. Transformed into a tuyuyu, he flew off with his wife. When Avayurupiagua saw this, he dashed angrily into his house to fetch bow and arrow. He shot off one arrow after the other, but was unable to hit them.

Ce [177] This legend seems to me to be entirely free of foreign elements. The ladder mentioned refers to a long stick into which Ce [417] step-notches have been cut. The Chiriguano in particular, as well

[343]

Ce
539
Ee
[417]
[343]

/285 cont./
as the Chané on the Itiyuro, always use them for the maize granaries, which are built on piles (see Fig. 84b).

How Aguaratunpa Killed Tatutunpa and Was Then Killed Himself.

Told by the Chané chief Batirayu.

In olden times there were once two deranged girls. Not far from them lived Tatutunpa. They heard him play so beautifully on his "huiramimbi" (see Fig. 80a /see p. 22/). One of them said to the other: "Let us go and see who is playing so beautifully." They went to Tatutunpa, who was lying in his hammock. Tatutunpa took the youngest girl as his wife.

/286/ Aguaratunpa had learned that the girls had gone to Tatutunpa's. He set out, hid in the field where Tatutunpa was working, and killed him with a club. Then he carefully removed the skin of the head and put it on. Resembling Tatutunpa in this way, he went to the latter's hut.

"Look, your husband is coming," said the older sister. She put food on the table. Since Tatutunpa was in the habit of eating very little, only a few beans and a small bowl of maize beer, she did not serve any more. When Aguaratunpa came, he ate up everything and demanded more. When he had eaten this, he demanded still more. The girl asked herself whether this could really be her husband who was eating so much, but of course it could not be anyone else.

In the evening Aguaratunpa asked his wife to delouse him. She sat down and looked for lice on the head of Aguaratunpa. While she was looking, Aguaratunpa fell asleep. She saw that the skin on his head was sewed together, and realized that he had killed her husband and skinned him. She told her sister about this and they killed Aguaratunpa with a club.

342 placed close together and fastened with withies lashed on horizontally (figs. 189 and 190), or of branches woven together and daubed with clay (fig. 191). The roof, the construction of which is apparent from fig. 217, is thatched with grass. This is an especially interesting *method of roof-construction, used in Peru already in the pre-Columbian period*, a fact plainly evident from an ancient Peruvian vase-painting[1] (fig. 193). The walls and the roof are supported by a hut frame consisting of poles (fig. 217).

133
342
• 343

Fig. 188. Part of a Chiriguano village. Two small pile-buildings, used as maize-barns can be seen between the huts. Entre, Bolivia. Photo. E. v. R.

343 The granaries for storing maize are always built on pole supports
417 (figs. 188 and 192). Fig. 191 shows a step-ladder leaning against a tree.
[322] Step-ladders of this kind, usually hewn out of a single piece of wood, are used by the Chiriguano as means of access to these pole-supported granaries.

174 Baron E. Nordenskiöld, who has made a valuable analysis of the distribution
342 of pile-buildings in South America[2], considers that when pile-buildings occur among a tribe inhabiting a region not exposed to inundations, then the idea of constructing buildings raised on piles has generally originated at the time when the tribe inhabited some other region, either a swamp,

[1] Joyce (1), fig. 13.
[2] Nordenskiöld (II), pp. 3–8.

1 [see cat. 116, P. 215 - - Analyst]
2 [see cat. 116, p 195 - - An.]

or a district threatened with flooding through rainfall or the flowing in of the oceanic tide. In my opinion, however, this has usually not been the case.

According to my thinking, it is the fear of predatory animals that has given rise to the pile-construction idea. Those granaries built on pole-supports, that are so commonly met with in widely different countries, have, we know, as a rule been constructed for the express purpose of furnishing protection against noxious animals, such as lesser carnivora, rodents and insects. As an example, the »njalla» of the Lapps is built

Fig. 191. Part of a Chiriguano village. To the right a pile-barn. Bolivia. Photo. E. v. R.

as a protection against wolverines[1], and many of the native tribes of Africa erect their food depositories, or grain bins, on pole-supports to make them safe against mice and white ants.[2] Both the Balenge people, who inhabit a fairly arid country, and the Babisa, who live on the edge of the Bangweolo swamp, build their corn bins on piles.[3] As the Babisa often build their huts on a platform of beaten clay[4] (not piles, it will be noted) as a protection against the annual heavy floodings of the rainy season, this will naturally give rise to the supposition that the Babisa

[1] von Duben (1), p. 35.
[2] von Rosen (4), pp. 411—412.
[3] von Rosen (4), pp. 332, 349 (fig. A), and 411—412.
[4] von Rosen (4), p. 319 and plate 67 (figs. C and D), also plate 68, fig. D.

[P 196 is blank]

7:Rosen E-5 (1901-1902) 1924 SF10 Chiriguano SF10

342
343
825
171
174

granaries, at any rate, are raised on supports in order to keep the stored crop from getting wet. That such is not the case will, however, be apparent from the fact that the granaries are empty during the time of the rains. It should be remembered that, in these parts, the period of vegetation coincides with the duration of the rainy season, and that the crops are harvested and stored only after the cessation of the rains. During the time the grain reposes in the granaries no rain falls at all, and on that account the granaries of the Balenge are often unprovided with a roof.[1] Moreover, Balsisa, as well as Balenge, stated that the pile-built grain bins were constructed solely as a protection against damage to the corn from rats and white ants. The practice of erecting buildings on piles as a safeguard against flooding is entirely non-existent in the Bangweolo region.

Fig. 193. Ancient Peruvian Inn. Vase-painting. After Joyce.

The fundamental idea of storing food in structures built on piles may, in my opinion, be traced back to the custom of primitive peoples of keeping freshly killed meat, and other food, safe from depredation by larger or smaller raiding animals, by suspension on trees. The ›njalla‹, which is erected on a single pole, or on the lopped stem of a growing tree left on its root, may, I think, be taken to be a development of the primitive tree cache. The four-poled Lappish larder called ›luspar‹, or ›luove‹ (cfr. the Swedish words ›loft‹, and ›lave‹), is on the other hand most probably an imitation of the ›hebrä‹ stores of the land-settled folk, which, presumably, also have received their pile-building construction with a view to forming a protection against noxious animals. For the ›hebrä‹ is probably nothing but a development of the ›lave‹. In order to keep divers implements safe, not only from wild animals, but also from mischievous domestic cattle, such as goats, it is sometimes necessary to construct at the homestead a ›lave‹, the floor of which is either supported by three or four rooted tree-stumps, or by poles driven into the ground (fig. 189). When it is desired to shelter the stored utensils from rain, a roof is built at a suitable height from the floor, and if a still more effective shelter is required, the space between the floor and the roof is filled in with walls. At the stone-age

[1] von Rosen (1), fig. 303.

7:Rosen E-5 (1901-1902) 1924 SF32 Chiriguano SF32

experiment carried out at Rockstead in the summer of 1919[1], the• comage men• soon found themselves compelled to build a •hut• so that the goats should not damage such foodstuffs and implements as had to be kept outside the hut.[2]

It is my belief that the •hut• has also supplied the idea of building dwelling-houses on pole-supports. Wherever people in a certain stage of civilization have found themselves settled on solid ground, they have had need of raised food-platforms, partly for keeping their foodstuffs safe from damage on the part of domestic as well as noxious animals, partly for the purpose of drying, smoking or roasting the food (see pp. 38, 47 and 48). If such a people, living on the edge of a lake or a swamp, had wished — for defensive purposes or some other reason — to build their dwelling-huts or other buildings in the water, then, if the bottom of the lake afforded good holding for piles, such buildings would have been constructed in the same way as the food-platforms or pole-supported granaries previously employed on firm ground (compare fig. 18 with fig. 115). Where the people in question has been lacking in sufficient skill to construct large pile-buildings in the water, or if the lake bottom was unsuited to this mode of construction, then huts were built on rafts or quagmire islands, after the manner of the swamp dwellers of Alvastra and Ruegenwalde.[3]

The furnishing of the Chiriguano huts is exceedingly plain. The fire-place, which forms a very necessary heating centre at night during the cold season, consists of a few stones serving as supports for the cooking pots. There is no hole in the roof for letting out the smoke, which has to find its way out through the doorway or through fissures in the walls. As a rule, the food is generally cooked on a fire outside the hut (fig. 189).

Bedsteads of the type seen in fig. 190 are to be found in nearly every hut. These bed frames are made of laths or reeds, and are covered with skins. Nordenskiöld states as his opinion that the idea of these bedsteads has not been borrowed from the civilization of the whites.[4] In the analytical treatise he has written upon this question he adduces conclusive arguments for his opinion, as it seems to me. In Central Africa, one finds bedsteads that are very similar to the Indian ones,[5] and that certainly have not

[1] Klute, pp. 88—89.
[2] Klute (2).
[3] For lake and marsh dwelling-places in different parts of the world, see Montelius (2).
[4] Nordenskiöld (18), pp. 9—10.
[5] see Rosen (6), p. 279.

/15 cms./

342 191 "In 1627 the Jesuits found near Yapeyú a Guaraní aldea with five houses in which some 100 Indians lived. They found identical dwellings in San Ignacio and nearby regions. These houses were quadrangular and extremely long, often in excess of 50 meters."

341 177 178 Even during the time of their independence the Chiriguano had departed from the primordial construction of their towns, which had served in the first place for defense, since at the end of the 18th century Viedma describes their houses as "a few small ranchos made of cane" (61).

[13] 61. Viedma, Francisco de: Descripción de la provincia de Santa Cruz de la Sierra /Description of the Province of Santa Cruz de la Sierra/. Colección Angelis. Vol. 3, Buenos Aires, 1836. written 1788. p. 181. Cited by Nordenskiöld.

OCD Photographs of Chiriguano Towns (tenta) and Houses (o)

I.C. 353. Chiriguano town, Macharetí (Fig. 1).
I.C. 355. Scene in the town of Macharetí (Fig. 17).
I.C. 356. Chiriguano in front of their house in Macharetí (Fig. 14).
I.C. 357. Chiriguano storehouse in Macharetí (Fig. 16).
I.C. 358. Chiriguano boys in front of their rancho in Macharetí (Fig. 15).

361 [199] [323] [197] The Chiriguano town of Macharetí was built in its present form by Franciscan missionaries, with wide, parallel, and right-angled streets, following the common form of old Spanish colonies, since their construction is not a product of the indigenous Chiriguano culture. But in parts, the houses and primarily the maize storehouses built on posts, correspond [343] to the houses of other Chiriguano towns, on which we have information from Erland Nordenskiöld and Eric v. Rosen (62).

62. Nord. 1. pp. 173. 176. Nord. 2, pp. 1-2. Eric v. Rosen, op. cit., pp. 191 and 192. Figs. 189-192.

/16 cont./

342 A special feature of Chiriguano houses and where they differ from those of the common ranchos of white residents is that the two oblique sides of the roof descend almost to the ground, paning far beyond the wall. Machareti houses also show this special feature. (Cf. Fig. 14 /see p.40/.) The result of this roof construction is that the entrance (ẽkye) is on the gable side. To shut the entrance they use reed mats or cowhides (65). Widely influenced by the whites, the Chiriguano

65. Métraux I, p. 469.

and the Chané continually vary the style of their houses, and, according to Nordenskiöld (66), today many of them are already building houses identical with those of the whites.

66. Nord. 1, p. 173.

343 In addition to the houses used for dwellings, the Chiriguano and some of the Chané have houses built on posts for storehouses (avatió). Also in Machareti such houses were commonly found beside the dwellings. Figure 16 /see p. 41 / shows such a storehouse. A ladder, which consists of a post provided with notches, leads to the platform (on the right in the figure). These storehouses serve primarily as places to keep the maize crop and other produce. The space under the platform serves for storing various other things. Nordenskiöld saw such houses built on posts, whose upper part served in general for storage, while the lower part was utilized as a dwelling (67). Often those

67. Nord. 1, p. 175; Nord. 2, p. 3.

storehouses are near the plantings far from the dwellings (68).

68. Nord. 1, p. 173.

As shown in Figure 16, the frame for these storehouses consists of ten vertical posts of different lengths, bifurcated at their upper ends to support the horizontal posts that form the base for

/16 cont./

343 the roof and the /Plates V-VII appear here/ /17/ platform.
335 The middle pair of the vertical posts is the longest pair and serves to hold up the ridgepole. Of the other eight vertical posts, always in two, one longer and one shorter, have been placed immediately next to each other all along the two sides of the middle pair of posts and at a certain distance from it. Of the horizontal posts, each one of which is held up by each one of the five pairs of vertical posts, those which are placed on the higher pair and on the two pairs of middle size of the vertical posts serve to hold up the roof, while the two horizontal posts which are placed on the two smaller pairs of vertical posts form the base for the platform of the house. Besides the five pairs of vertical posts that form the frame of the house, there is also added a vertical post of the height of the platform, which serves to support the ladder leading
343 to it. The roof of these storehouses is covered with straw like the roofs of dwellings. The walls are made of reed poles very close together. While the poles of the storehouse illustrated in Figure 16 are horizontal, those of other storehouses, with which we are familiar through Nordenskiöld's photographs and those of v. Rosen and Métraux, are vertical (69). The en-

69. Nord. 1, Figs. 83 and 84 and Pl. 18. Métraux I, Fig. 9, p. 349.

trance, which must be reached by means of the ladder, is at
[417] the gable end, like that of the dwellings. The ladder consists of a post with notches for steps (70).

70. Cf. Fig. 16, at the right. Nord. 1, Fig. 84. v. Rosen, op. cit., Fig. 191.

[171] [174] There must be some special reason to explain the surprising fact that the Chiriguano have houses built on posts, since it could not be that they brought the custom of constructing them from their native soil, because the Guaraní have never had them. Nor could it be that they adopted this from

[TEXT CONTINUES ON P. 42]

Plate VII

343
335

Fig. 16
(I.C. 357) -- Chiriguano storehouse built on posts in Machareti

291
412
415

Fig. 17
(I.C. 355) -- Scene in the Chiriguano town of Machareti. Boy dressed in a poncho. Large baked clay vessels and a mortar.

343 [177] /17 cont./ Nor could it be that they adopted this from the whites, because in those regions they have never used houses built on posts. Neither do we have any indications that the ancient Peruvians had such houses. It is very unlikely [176] that the Chiriguano settled in their new territory might have invented the construction of such houses, because the nature of their territory did not render such a form of construction necessary. In South America we find houses built on posts 343 171 almost solely in regions exposed to floods. Thus we mainly find them in the coastal regions of the northern part of the South American continent, and they appear to the south of the Amazon River only in a relatively narrow zone in the center of the continent including Chiriguano territory. According to Marban in 1676 (71), the Mojo had houses built on posts and

[113]

71. Marban, Pedro: "Relatión de la Provincia de la Virgen del Pilar de Mojos /Report on the Province of the Virgen del Pilar de Mojos/," Boletin de la Sociedad Geografica de La Paz, Bolivia, 1898, p. 132. According to Nordenskiöld.

doubtless such house constructions were quite useful in those marshy and often flooded regions. In addition Nordenskiöld during his travels (72) found one of these houses serving as a

72. Nord. 2, p. 3.

storehouse among the Chacobo, who live north of the Mojo not very far away. Some of the Quichua /Quechua/ houses located between the Chaparé River and the Cochabamba River had been built on posts, but Nordenskiöld himself does not consider this architecture to have been primordial among them. Of the Chaco tribes who have storehouses built on posts Nordenskiöld mentions the Matako /Mataco/. I found such storehouses in the Matako town near Linares, but many of them also in the Churupí installations in Esteros. Nordenskiöld in his publications on the Churupí, whom he calls the Ashluslay, does not

/17 cont./ mention the existence of such storehouses among these Indians, and thus we must suppose that the Churupí adopted this style of house construction only recently and probably from the Matako, with whom they have many contacts. /18/ To complete the data on the spread of houses built on posts, I shall also mention my observations on my expeditions of 1901 and 1910 to the Guató (73). Inside many houses, under the roof and using long horizontal poles, these Indians build a platform which serves for storing various things. In this special arrangement of the Guató in building their houses, we find the rudiment of the true houses built on posts, and this is motivated by the great floods to which they were exposed even when they had been built in places higher than the marshy lands.

73. Max Schmidt: Indianerstudien in Zentralbrasilien /Indian Studies in Central Brazil/, Berlin, 1904, p. 178.

We should not consider houses built on posts as a product of the primordial culture of the Chaco tribes. It leaves as the only center of its propogation the zone in the interior of the South American continent which we have mentioned, the center of the ancient culture of the Aruaco /Arawak/ of these regions, the territory of the Mojo. The Chané, who were later subjugated by the Chiriguano and incorporated into their community, also belonged to this Aruaco culture. We must thus surmise that houses built on posts, like those we still find today among the Chiriguano and some of the Chané, first originated in the Chané culture and later passed to the Chiriguano when the cultures of these two tribes were fused into a single one.

No doubt the special construction of these storehouses has a different purpose today among the Chiriguano and the Chané than it had in the beginning. According to Nordenskiöld, the Chané of the lower Parapití River, which is a typically marshy region, do not have such houses, while they are common among the Chiriguano and also among the former who live on solid ground not exposed to floods. Their purpose

C
Ce
343
182
171
231

/18 cont./ Their Purpose
today among the Chiriguano and Chané, as well as among the Matako and Churupí, is primarily to protect certain provisions against the numerous dogs and other domestic animals who are around in great number in every part of the town (74).

74. Concerning the question of the purpose of houses built upon posts with respect to damage by animals, cf. v. Rosen, op. cit., pp. 192-198.

C
Ce
433
224
226

Food and Drink. Manner of Eating and Drinking.

Hunting and fishing are not very important in the economy of the Chiriguano and Chané. Their territory has relatively few edible animals, and they are not very brave hunters (75).

75. Nord. 2, p. XVI.

C
Ce
224
262

Of animals that can be hunted, they eat the puma and the jaguar, while they scorn vultures, foxes, and the meat of monkeys, so craved by other Indians (76). One contribution

C
Ce
226
184

76. Nord. 1, p. 190.

to their subsistence which is worth mentioning is that from fishing, but only for the Chiriguano and Chané who live near the upper Pilcomayo River, since that river has excellent fishing. These Indians cannot make much use of fishing in the Río Grande, because today this river can be held to be almost the frontier of their territory. The Parapití River has many fish, but they are very small. While the Chané today live in territories where for several months some fish are available, many Chiriguano towns are so far from the larger streams that fish does not enter into the diet of their inhabitants (77). With

77. Nord. 2, pp. XV and XVI.